

WHAT IS CLAIMED IS:

1. An isolated nucleic acid selected from the group consisting of:
 - (a) a nucleic acid encoding a protein comprising the amino acid sequence of SEQ ID NO:2 or a fragment thereof;
 - (b) a nucleic acid comprising a coding region of the nucleotide sequence of SEQ ID NO:1;
 - (c) a nucleic acid encoding a protein that comprises the amino acid sequence of SEQ ID NO:2, in which one or more amino acids are substituted, deleted, inserted and/or added and that is functionally equivalent to a protein consisting of the amino acid sequence of SEQ ID NO:2;
 - (d) a nucleic acid that hybridizes under stringent conditions with a nucleic acid consisting of the nucleotide sequence of SEQ ID NO:1, and that encodes a protein functionally equivalent to a protein consisting of the amino acid sequence of SEQ ID NO:2; and
 - (e) a nucleic acid encoding a protein that has at least 60% identity to the amino acid sequence of SEQ ID NO:2.
2. An isolated nucleic acid encoding the amino acid sequence of SEQ ID NO:2 or a fragment thereof.
3. The nucleic acid of claim 1, wherein the number of amino acids substituted, deleted, inserted and/or added is 30 or fewer.
4. The nucleic acid of claim 1, wherein the nucleic acid encodes a fusion protein comprising a first amino acid sequence as shown in SEQ ID NO:2 fused to a second amino acid sequence.
5. A vector into which the nucleic acid of claim 1 is inserted.
6. A vector into which the nucleic acid of claim 2 is inserted.
7. A transformant harboring the nucleic acid of claim 1.

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- 1 8. A transformant harboring the nucleic acid of claim 2.
- 1 9. A transformant harboring the vector of claim 5.
- 1 10. A transformant harboring the vector of claim 6.
- 1 11. A substantially purified polypeptide encoded by the nucleic acid of claim 1.
- 1 12. A substantially purified polypeptide encoded by the nucleic acid of claim 2.
- 1 13. A method for producing a polypeptide, the method comprising the steps of
2 culturing the transformant of claim 9 and recovering a polypeptide expressed from the
3 transformant or the culture supernatant thereof.
- 1 14. A method for producing a polypeptide, the method comprising the steps of
2 (a) culturing the transformant of claim 10 and (b) recovering a polypeptide expressed from
3 the transformant or the culture supernatant thereof.
- 1 15. An antibody against the polypeptide of claim 11.
- 1 16. An antibody against the polypeptide of claim 12.
- 1 17. A polynucleotide that hybridizes with the nucleic acid comprising the
2 nucleotide sequence of SEQ ID NO:1 or the complementary strand thereof and that
3 comprises at least 15 nucleotides.
- 1 18. A method for screening for a compound that binds to the polypeptide of
2 claim 11, the method comprising the steps of:
3 (a) contacting a test sample with the polypeptide or a partial peptide thereof,
4 (b) detecting a binding activity of the test sample to the polypeptide or the partial
5 peptide thereof, and
6 (c) selecting a compound comprising the binding activity to the polypeptide or
7 the partial peptide thereof.

1 19. A method for screening for a compound that binds to the polypeptide of
2 claim 12, the method comprising the steps of:

- 3 (a) contacting a test sample with the polypeptide or a partial peptide thereof,
4 (b) detecting a binding activity of the test sample to the polypeptide or the partial
5 peptide thereof, and
6 (c) selecting a compound comprising the binding activity to the polypeptide or
7 the partial peptide thereof.

1 20. A compound isolated by the method of claim 18.

1 21. A compound isolated by the method of claim 19.

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